

Amendment To The Claims

1. (Currently Amended) A data processing system comprising a flash memory storage medium ~~(3)~~ whose storage area ~~which~~ has a plurality of blocks ~~storage areas~~ assigned physical addresses and each belonging to a group ~~divided into groups~~, and an access apparatus ~~(4)~~ which performs acquisition of data from the flash memory storage medium, erasure of data from the storage medium and storage of data into the storage medium, wherein:

data stored in said storage area of said flash memory can be erased only in block units at once;

said access apparatus comprises a memory ~~(11, 122, 123)~~ and a controller ~~(12)~~;

said memory stores an address translation table which shows the physical addresses assigned to the blocks ~~storage areas~~ belonging to one of said groups and logical addresses associated with said physical addresses; and

said controller performs

acquiring logical addresses specifying the blocks ~~storage areas~~ which store the data to be acquired or the blocks ~~storage areas~~ which store the data to be erased,

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group of blocks ~~storage areas~~ assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses,

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks ~~storage areas~~ and the logical addresses associated with said physical addresses,

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses, and

accessing the blocks ~~storage areas~~ assigned the specified physical addresses.

2. (Currently Amended) An access apparatus (1) which performs acquisition of data, erasure of data, and storage of data from and into a flash memory whose storage area ~~storage medium which~~ has a plurality of blocks ~~storage areas~~ assigned physical addresses and each belonging to a group ~~divided into groups~~, wherein:

data stored in said storage area of said flash memory can be erased only in block units at once;

said access apparatus comprises a memory (11, ~~122, 123~~) and a controller (12);

said memory stores an address translation table which shows the physical addresses assigned to the blocks ~~storage areas~~ belonging to one of said groups and logical addresses associated with said physical addresses; and

said controller performs

acquiring logical addresses specifying the blocks ~~storage areas~~ which store the data to be acquired or the blocks ~~storage areas~~ which store the data to be erased,

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group of blocks ~~storage areas~~ assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses,

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks ~~storage areas~~ and the logical addresses associated with said physical addresses,

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses, and

accessing the blocks ~~storage areas~~ assigned the specified physical addresses.

3. (Currently Amended) The access apparatus according to claim 2, wherein:

said flash memory ~~storage medium~~ stores condition-defined data specifying conditions for access to the flash memory ~~storage medium~~; and

said controller acquires the condition-defined data from the flash memory ~~storage medium~~, and performs acquisition of data from the flash memory ~~storage medium~~ and erasure and storage of data other than the condition-defined data from and into the flash memory ~~storage medium~~ in accordance with the conditions specified by the condition-defined data as acquired.

4. (Currently Amended) The access apparatus according to claim 3, wherein:

said memory stores replacement data representing contents of a replacement for a to-be-replaced portion of the condition-defined data; and

said controller accesses the flash memory ~~storage medium~~ in accordance with the conditions specified by the condition-defined data, acquired from the flash memory ~~storage medium~~ and whose to-be-replaced portion has been replaced with the replacement data.

5. (Original) The access apparatus according to claim 4, wherein said controller performs a function for replacing the replacement data stored in said memory with new replacement data.

6. (Currently Amended) The access apparatus according to claim 2, wherein:
the flash memory ~~storage-medium~~ includes identification data stored therein for identifying the flash memory ~~storage-medium~~; and

said controller acquires the identification data from the flash memory ~~storage-medium~~, determines whether to access the flash memory ~~storage-medium~~ in accordance with the identification data as acquired, and refrains from accessing the flash memory ~~storage-medium~~ when said controller determines not to access the flash memory ~~storage-medium~~.

7. (Currently Amended) The access apparatus according to claim 6, wherein:
said memory stores identification data for collation; and
said controller determines whether there is a substantial match between the identification data acquired from the flash memory ~~storage-medium~~ and the identification data for collation stored in the memory, and determines to access the flash memory ~~storage-medium~~ when the controller determines that there is a substantial match between the acquired identification data and the identification data stored in said memory.

8. (Currently Amended) The access apparatus according to claim 2, wherein said controller:

creates an empty area table specifying the blocks ~~storage-areas~~ which do not store said data, among said plurality of blocks ~~storage-areas~~,

stores the empty area table in said memory; and

causes the blocks storage areas specified by the empty area table to store said data.

9. (Currently Amended) A data processing method for performing acquisition of data from a flash memory storage medium (3) ~~whose storage area~~ ~~which~~ has a plurality of blocks storage areas assigned physical addresses and each belonging to a group ~~divided into groups~~, erasure of data from the flash memory storage medium and storage of data into the flash memory storage medium, wherein data stored in said storage area of said flash memory can be erased only in block units at once, said data processing method comprising steps of:

storing an address translation table which shows the physical addresses assigned to the blocks storage areas belonging to one of said groups and logical addresses associated with said physical addresses;

acquiring logical addresses specifying the blocks storage areas which store the data to be acquired or the blocks storage areas which store the data to be erased;

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group of blocks storage areas assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses;

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks storage areas and the logical addresses associated with said physical addresses;

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses; and

accessing the blocks storage areas assigned the specified physical addresses.

10. (Currently Amended) An access method for performing acquisition of data, erasure of data, and storage of data from and into a flash memory whose storage area storage medium which has a plurality of blocks storage areas assigned physical addresses and each belonging to a group divided into groups, wherein data stored in said storage area of said flash memory can be erased only in block units at once, said access method comprising steps of:

storing an address translation table which shows the physical addresses assigned to the blocks storage areas belonging to one of said groups and logical addresses associated with said physical addresses;

acquiring logical addresses specifying the blocks storage areas which store the data to be acquired or the blocks storage areas which store the data to be erased;

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group of blocks storage areas assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses;

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks storage areas and the logical addresses associated with said physical addresses;

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses; and

accessing the blocks storage areas assigned the specified physical addresses.

11. (Currently Amended) A computer-readable storage medium, including a program product embodied therein for causing a computer, which performs acquisition of data, erasure of data, and storage of data from and into a flash memory whose storage area ~~storage medium~~ ~~which~~ has a plurality of blocks ~~storage areas~~ assigned physical addresses and each belonging to a group divided into groups, wherein data stored in said storage area of said flash memory can be erased only in block units at once, to serve as a memory (11, 122, 123) and a controller (12), wherein:

said memory stores an address translation table which shows the physical addresses assigned to the blocks ~~storage areas~~ belonging to one of said groups and logical addresses associated with said physical addresses; and

said controller performs

acquiring logical addresses specifying the blocks ~~storage areas~~ which store the data to be acquired or the blocks ~~storage areas~~ which store the data to be erased,

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group including the blocks ~~storage areas~~ assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses,

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks ~~storage areas~~ and the logical addresses associated with said physical addresses,

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses, and

accessing the blocks ~~storage areas~~ assigned the specified physical addresses.

12. (Currently Amended) A computer data signal embedded in a carrier wave and representing a program for causing a computer, which performs acquisition of data, erasure of data, and storage of data from and into a flash memory whose storage area ~~storage medium~~ which has a plurality of blocks ~~storage areas~~ assigned physical addresses and each belonging to a group divided into groups, wherein data stored in said storage area of said flash memory can be erased only in block units at once, to serve as a memory (11, 122, 123) and a controller (12), wherein:

said memory stores an address translation table which shows the physical addresses assigned to the blocks ~~storage areas~~ belonging to one of said groups and logical addresses associated with said physical addresses; and

said controller performs

acquiring logical addresses specifying the blocks ~~storage areas~~ which store the data to be acquired or the blocks ~~storage areas~~ which store the data to be erased,

determining whether it is possible to specify, based on the address translation table, the physical addresses associated with the logical addresses acquired by said controller, and specifying among said groups a group including the blocks ~~storage areas~~ assigned the physical addresses associated with the acquired logical addresses, when said controller determines that it is impossible to specify said physical addresses,

updating the address translation table so as to show the physical addresses assigned to the specified group of blocks ~~storage areas~~ and the logical addresses associated with said physical addresses,

specifying the physical addresses associated with the logical addresses acquired by said controller, based on the updated address translation table and the acquired logical addresses, and

accessing the blocks ~~storage areas~~ assigned the specified physical addresses.